



NRC NEWS

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NRC MODIFIES ORDER REQUIRING INSPECTION OF PRESSURIZED WATER REACTOR VESSEL HEADS

The Nuclear Regulatory Commission is revising the Order for inspection requirements for reactor pressure vessel heads at pressurized water reactors. The change is part of the Commission's ongoing efforts to provide a clear regulatory framework to ensure public health and safety. The revised Order primarily addresses requirements for bare-metal visual inspections and non-visual examination of reactor pressure vessel heads.

The discovery of degradation in the vessel head at the Davis-Besse reactor in Oak Harbor, Ohio, and discovery of leaks and cracking at other plants, reinforced the need for more effective reactor vessel head inspections, leading the NRC to issue an Order in February 2003. The original Order required visual inspection of the entire bare-metal surface of a vessel head.

Based on information provided in numerous requests for deviation from portions of the inspection regime, the NRC concluded that a revised Order, which requires at least a 95 percent bare-metal inspection for those vessel heads with portions obscured by certain support structures, was warranted. If any boron deposits or corrosive residue are identified in the vicinity of the support structure, the licensee must examine the vessel head under the obstruction to ensure the head is not degraded.

In addition, the revised Order adds a "Replaced" category of vessel head degradation susceptibility to the existing High, Moderate and Low ratings. The categories determine the required frequency of vessel head inspections for plants during refueling outages, which typically occur about every 18 to 24 months.

Plants in the High category must perform inspections during every refueling outage. Those in the Moderate category must perform inspections during at least every other refueling outage. Plants in the Low category must perform bare-metal inspections at least every third outage or every five years, whichever occurs first. Penetration nozzle non-visual inspections must be performed every fourth outage or every seven years, whichever occurs first.

Plants in the Replaced category need not perform inspections during the outage when the head is replaced. However, these plants must thereafter perform the same inspections as the Low category.

The revised Order continues to provide reasonable assurance of vessel head integrity and protection of public health and safety.

The revised Order retains the requirement for licensees to submit a report to the NRC detailing the inspection findings within 60 days of restarting the plant. A copy of the revised Order (EA-03-009, Rev. 01) will be available through the NRC's Agencywide Documents Access and Management System (ADAMS) on the agency's web site, by entering accession number ML040220391 at this address: <http://www.nrc.gov/reading-rm/adams/web-based.html> .

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